-MR. MULRANEY-

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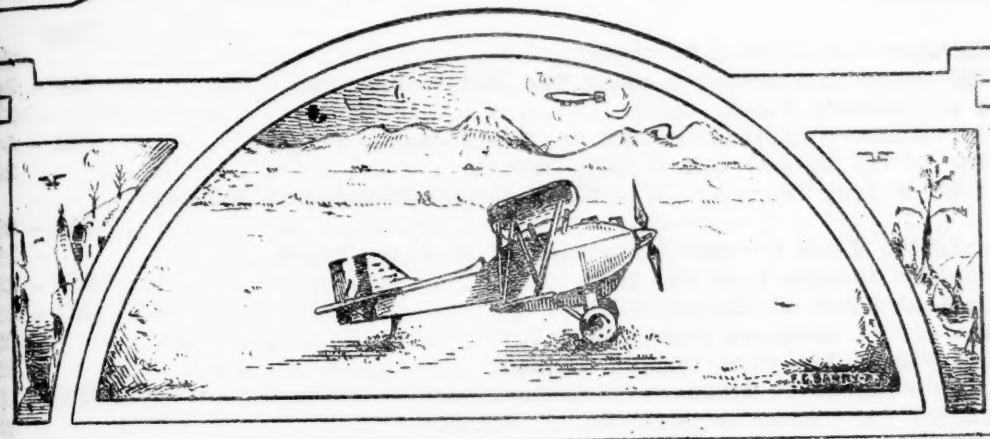

Air Corps News Letter

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VOL. XII AIR CORPS NEWS NO. 10

Information Division Air Corps — July 10, 1928 — Munitions Building Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel of the Regular Army, Reserve Corps, National Guard and others connected with aviation.

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MAIL TRANSFER FROM AIRSHIP TO TRAIN

By the Scott Field Correspondent

Probably the first attempt that has ever been made to effect the transfer of mail from air to train was carried out at Scott Field, Belleville, Ill., on June 15th last. Lieut.-Colonel John A. Paegelow, Commandant of Scott Field, directed the test, the ship being flown by Lieuts. Karl S. Axtater and Edward H. White. The attempt was made in cooperation with the Illinois Central Railroad authorities, Mr. F. E. Hatch, General Superintendent; Mr. J. F. Umshler, Trainmaster, and Mr. J. Morgan, shop foreman. There was practically no advance preparation other than as to setting the time of the attempt and the place, one of the purposes of the test being to demonstrate the possibility of intercepting a train in an emergency and transferring mail or passengers from airship to train while both are in motion.

The train, a fast traveling express, left Belleville, Illinois, at 7:21 a.m. for New Orleans at approximately the same time Colonel Paegelow received the mail bag on the airship with orders to intercept the express and transfer the mail. The train was intercepted several miles out of Belleville, traveling between thirty and forty miles an hour. The speed of the airship was then synchronized as closely as possible to that of the train, with the ship flying directly above the train.

Due to block signals and cross wires at frequent intervals along the track, it was found extremely difficult to descend to the top of the train in the short spaces between obstructions. At one time when the train passed between wooded sections on both sides of the track the car of the airship and the train were completely hidden from an accompanying airship carrying a photographer. A cross wind made it difficult to keep the ship, which is 210 feet long, in a position parallel to the train and there was danger of fouling the rudder in the telephone lines along the track. On one occasion the rudder surface dropped below the top of the car, between the train and telephone wires, and it was necessary to drop several bags of ballast.

The greatest difficulty experienced was in synchronizing the speed of the airship with that of the train. The engineer on the train, endeavoring to assist to the best of his ability, slowed down the train on two occasions just as contact was about to be made, and as a result the ship overshot the mail coach. However, when the misunderstanding was corrected the speed of the train was kept constant and on the next attempt the ship cruised directly over the train and when an open stretch of track was reached dipped down to the top of the train, the bag of mail was handed to the mail clerk on the train, and the ship soared off and returned to Scott Field.

The test demonstrated the feasibility of not only transferring mail from airship to train, but also transferring passengers, and it is hoped that such an attempt will be made in the near future.

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AIR CORPS GROWS IN POPULARITY AMONG WEST POINT GRADUATES

Of the 260 students of the United States Military Academy, West Point, N.Y., who graduated on June 9th last, 76 have elected to cast their lot with the Air Corps, or approximately 29%. Under orders recently issued by the War Department, these 76 newly commissioned 2nd Lieutenants are detailed to the Air Corps, effective September 8, 1928, and they have been directed to proceed, upon the expiration of their present leave of absence, to the Primary Flying School at Brooks Field, San Antonio, Texas, for training. None of the members of the graduating class were commissioned in the Air Corps for the reason that the Air

Corps Act, approved July 2, 1926, prohibits officers being permanently commissioned in the Air Corps unless they qualify as flying officers.

The following tabulation shows the number of graduates assigned to the various branches of the service, also the number from each branch detailed to the Air Corps:

Branch of Service	Regularly Assigned	Detailed to Air Corps
Corps of Engineers	24	2
Signal Corps	11	4
Cavalry	25	7
Field Artillery	48	15
Coast Artillery Corps	33	12
Infantry	116	34
Quartermaster Corps	3	2
Total	260	76

Members of the graduating class detailed to the Air Corps are enumerated below, as follows:

Albert L. Alexander, Jr.	Corps Engrs.	Paul A. Leahy	C.A.C
John C. Banta,	"	Roger M. Ramey	Inf.
Donald B. Smith,	Infantry	Harold Brown	"
John S. Mills	Field Art,	Forrest G. Allen	"
George W. Mundy	"	John T. Martha, Jr.	"
Alfred R. Maxwell	C.A.C.	George W. Baker	"
Paul H. Johnson	C.A.C.	Ralph J. Butchers	"
Roscoe C. Wilson	Field Art.	Samuel E. Anderson	C.A.C.
William H. Hennig	C.A.C.	Joseph A. Bulger	"
Bryant L. Boatner	Field Art.	Frank R. Maerdian	Inf.
Nathan B. Forrest, Jr.	Cavalry	George F. Smith	"
Robert F. Tate	"	Allen W. Reed	"
Karl G.E. Gimmler	Field Art.	Arthur W. Meehan	"
Samuel R. Brentnall	"	Walter G. Staley	"
Henry F.Beaumont, 4th,Jr.	Cavalry	Thomas J. Moran	"
Clayton J. Mansfield	"	Truman H. Landon	C.A.C
Paul D. Peery	C.A.C.	Richard R.Middlebrooks	Inf.
Frank F. Everest, Jr.	Field Art.	Charles F. Howard	"
John J. Morrow	C.A.C.	Hampden E.Montgomery, Jr.	"
Frank J. Coleman	Sig.Corps	Maurice C. Bisson	"
John B. Allen	"	Harry E. Wilson	"
Norris B. Harbold	Field Art.	Robert W. Warren	"
George R. Bienfang	"	August W. Kissner	"
Charles G. Goodrich	"	LaVerne G. Saunders	"
Alvord V.P.Anderson,Jr.	Cavalry	Frank L. Skeldon	"
Robert J. Dwyer	Field Art.	Emmett O'Donnell, Jr.	"
Frederick L. Anderson	Cavalry	Donald W. Titus	"
Thayer S. Olds	C.A.C.	Emmett F. Yost	"
Robert F. Travis	Field Art.	Robert K. Taylor	"
Thomas J. Cody	Sig.Corps	James M. Ivy	"
Carl H. Sturies	"	Alfred B. Denniston	Q.M.C
William H. Tunner	Field Art.	James W. Brown, Jr.	Inf.
Ralph E. Koon	Cavalry	Edward F. Shepherd	Q.M.C
Oren R. Meacham	C.A.C.	Samuel H. Lane	Inf.
Howard G. Bunker	"	James F. Olive, Jr.	"
Henry L. Flood	Infantry	Edgar A. Sirmyer, Jr.	"
Stuart G. McLennan	Field Art.	Robert Wiesenauer	"
John A. Samford	"	Thomas W. Steed	"

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CHANGES AT ROCKWELL FIELD, CALIF.

Major A. L. Sneed, Air Corps, who has been in command of the Rockwell Air Depot, Coronado, Calif., since November 15, 1927, was relieved of that assignment and has assumed command of Rockwell Field, where the Headquarters 7th Bombardment Group, the 11th Bombardment Squadron and the 95th Pursuit Squadron are being reconstituted. Major J. H. Houghton, Air Corps, has assumed command of the Rockwell Air Depot, and 1st Lieut. Oliver P. Gothlin, Jr., Air Corps, appointed as Chief Engineer Officer of the Rockwell Air Depot.

PROFESSOR JUNKER'S ATTITUDE TOWARD THE TRANSOCEANIC FLIGHTS

Professor Junkers stated that his works stood in no other relation to the Kohl-Hunefeld project than that of airplane supplier. He had no participation in this project either financially or organizationally, even indirectly through other navigation or air traffic enterprises, as was wrongly supposed. Professor Junkers then explained that it was incorrect and unjust to characterize the attempt at a transoceanic flight as a sporting nuisance without any practical value or even as a veiled attempt at suicide, as has been done. "We can distinguish," continued Professor Junkers, "the action of two fundamentally different but interpendent types of men in all fields of human and political endeavor: the conservative man whose efforts in economic life aim at mass production without risk; in other cases, at the office-holder's career, extensively insured as it is against external disturbances; on the other hand, the opposite of this man, the pioneer, the man who stakes all on one card, the man of great risks. This type is the man of progress, the road-forger, sometimes also the revolutionary. He is the one who raises new problems and tries to solve them, and who concedes the freest right of operation to every personal initiative. These men broaden the boundaries of human energy and human action. We need these two types in all fields of human activity. They create tension, urge and healthful obstruction; in a word, development.

"It must, of course, not be concluded from this that every venture has a moral value simply because it is a venture. That would be a much too far-reaching conclusion. It goes without saying that the venture is also subject to criticism and one must condemn every venture when the object is not great enough to justify the risk, or when thedegree of probability of success is too small. This measure is somewhat elastic, and history has revised many a judgment that contemporaries have passed. When we look back from the standpoint of our stage of technical development, we may say with good reason that the history of the development of communications consists at first only of a series of attempts with unsuitable means. Just consider with what kinds of ships Columbus and Magellan made their discoveries. Think of the passionate fights against the railroad and of the history of the auto's development. That is what I mean when I say that history has often revised the opinion of contemporaries; it has made dare-devils into martyrs of an idea and great discoveries.

"The development of aviation would not have been possible at all without the type of man who takes upon himself a great risk. The further development of aviation will also not be able to do without cultivating courage and resolution. A stake for an ideal object has never yet been in vain, even if the one or the other could not gain a name by the loss of his life. The individual may perish, but the movement itself is driven forward by these ready-to-venture men who, in their urge for progress and accomplishment, do not flinch at danger.

"I have really said about all there is to say about the main points: It is unjust to condemn men who have set the crossing of the ocean as their goal simply because the attainment of their goal is connected with danger to their life. Do we condemn the mountain climber, the jockey, the motorcyclist, the automobilist, who often sacrifice their life to sport without having a great goal before them? Hence, more justice for the ocean fliers!

"The problem they have assigned themselves is a great one. That is a fact that cannot be disputed. Success today in the age of sport is a gain in national renown. But it would be quite wrong to deny the ocean attempts any practical value. They give the constructor of motor and machine problems which promote technical development more strongly in a few months than the easy-going work of much greater spans of time can do under other circumstances. We were able to observe this very well during the preparation of our record flights and later, while we were preparing the flight of the "Bremen" and "Europa." It is always the <u>great</u> problem that produces the exceptional accomplishment. Striving toward a goal, in aviation just as everywhere else, bears its fruits.

"The objection has been raised that they should wait with the ocean flight attempts until a more suitable machine is available. Persuasive as this objection appears, it is psychologically and practically incorrect. It lies in the nature of every development of communications that the intermediated stage of pure venture cannot be skipped. Nothing shows this more clearly, for example, than the development of aviation thus far. In ocean navigation they did not wait for the twin-screw steamer with watertight bulkheads, nor for the steam compound

locomotive in land transportation. The means, the instrument, always remained somewhat behind the object, and it was precisely this tension what brought development and progress.

"As regards the risk, it does not seem to me so great that it cannot be borne. It is chiefly a weather risk. The solution of these problems must naturally be left to the pilot and the meteorologists. The other question, land airplane or hydroplane, in the present stage of technique can only be answered in favor of the land plane. As long as ocean flight is predominantly a motor question as long as not only a proper supply of gasoline but, in addition to that, a large fuel reserve must be carried to travel such vast distances, the land plane, which possesses a greater range of flight than the hydroplane owing to the more favorable aerodynamic conditions, will stand in the foreground. The assumptiontion that there will in the near future be types of airplanes with which one can make emergency landings at any place on the ocean and in any weather and wait for help is not shared by all professional circles. I believe that we will sometime have large airplanes weighing 100 tons with perhaps 40 percent useful load. But the road in that direction is still long."

Professor Junkers then reverted to a detailed discussion of the reasons why the Dessau works declined all cooperation with the persons preparing for ocean flights. "The problem in itself," said Professor Junkers, "would certainly be tempting and it lies partly in our line, since we have always done a great deal in little cultivated fields of science with great pleasure and enthusiasm in keeping with the research character of my works. But, precisely in view of the research purpose of my works, we have, on the other hand, more important things to do, problems that can only be solved by the concentration of all our forces. There is, to mention only one example, the problemsof the airplane engine, which are fundamental for aviation.

"For these reasons we see our duty with regard to transoceanic flight problem only in the role of adviser. In full recognition of the principle of freedom for individual initiative, we warn against rashness and contribute our part to limiting the risk as much as possible wherever the requisites of success appear to be present. I gladly betray to you the secret that, by foregoing a large number of business advantages, we have, through our refusal, prevented ocean flights which we had to assume originated from men who in our opinion were not equal to this task. But wherever the personal requirements are fulfilled, we do not believe we would be serving aviation if we withhold our advice and experience from these daring men and abandoned them to the reproaches of the general public."

Professor Junkers then spoke of the American air traffic, which he said would soon outstrip the European air traffic, and concluded his remarks with the observation that, precisely from the standpoint that struggle and contest alone guarantee human progress, he most heartily welcomed the fact that the world endurance record formerly held by the Junkers fliers Edzard and Ristiez had again reverted to the Americans. He expected that this feat would have a stimulating and fruitful effect upon the German industry which, on its part, would by no means give up sport competition.

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GRADUATES OF THE BALLOON AND AIRSHIP SCHOOL

Graduation exercises for the Air Corps Balloon and Airship School, Scott Field, Belleville, Ill., Class of 1927-28, were held at the Officers' Club on June 29th. Lieut.-Col. John A. Paegelow introduced the speaker of the evening, Mr. J. Lyon Woodruff, of East St. Louis, who delivered a very interesting and amusing address. This was followed by the more serious part of the program, the presentation of the graduation certificates. Chaplain Charles F. Graesor, presented the invocation and benediction.

The graduates of this year's class are:

Lt.-Col. Jacob W.S. Wuest, A.C.
Capt. J.C. Bryan, Air Corps Reserve
1st Lieut. William R. Turnbull, A.C.
2nd Lieut. John P. Kirkendall, A.C.
2nd Lieut. Howard H. Couch, A.C.
2nd Lieut. Ralph E. Holmes, A.C.
2nd Lieut. Fred A. Ingalls, A.C.
Staff Sgt. James E. Hunton
Flying Cadet Matthew H. Cannon
Flying Cadet Howard Edwards
Flying Cadet Louis H. Enos
Flying Cadet Clarence C.Mitchell

THE FLIGHT OF ARMY ENTRY NO. 1 IN THE NATIONAL ELIMINATION BALLOON RACE

Lieut. William O. Eareckson, Aide to Captain William E. Kepner, pilot of the U.S. Army Entry No. 1 in the 1928 National Elimination Balloon Race, tells the following interesting story of their experiences on this flight:

On May 30th, at exactly 5:00 p.m., Eastern Standard Time, a great throbbing sigh, followed by a ringing cheer, went up from the multitudinous assemblage gathered at Bettis Field, Pa., for it was then that, in the words of the program, the first racing balloon "leapt into space."

Einstein was evidently right on this relativity stuff. Everything is relative to something else, and it all depends on the point of view. Thus, quite contrary to the words of the enthusiastic program scribe, one heavier-than-air Superman was heard to mutter, as this racing balloon soared overhead at the spanking clip of eight miles per hour, "My Gawd, is that thing racing? Hey, buddy, don't come too low, you might get run over by a snail!"

These two opinions being so diverse, perhaps a few words in explanation of a balloon race would be appropriate. As it was in the case of Aesop's fable of the Tortoise and the Hare, the victory is not always for the speedy. There are other elements to consider. Of course, in order to have any well founded expectations of winning a race, it is prerequisite that the team in the balloon be to notch in the actual handling of their craft. But, in addition, they should know as much as possible of meteorology, especially that phase of it called aerology; they should have an intimate knowledge of navigation, the theory of gases, aerostatics, and quite often geography is essential. If radio is carried they should be up on that; at times it is well to have a channel record under one's belt; and by the way, while we are dwelling on that region whose equator is the belt, perhaps the prime essential above all others is an excellent grade of good old-fashioned "guts". Unexpected things happen on any long free balloon flight, and it is well to be so constituted that you can always expect the worst with a tranquil mind, and be grinning when it happens.

The winner of a balloon race is the balloon which, when all the contestants have landed, is the farthest from the point of take-off, the distance being measured on the arc of a great circle between the point of the take-off and the point of landing. But I digress. My enthusiasm leads me from the subject, namely, this particular race from Pittsburgh.

The weather all day had been cloudy with occasional showers, accompanied by some mild thunder and lightning, and it was with a feeling of relief that we saw Old Sol break through the cumulous canopy and smile down from his azure setting about a half hour prior to the starting of the race.

Beginning at 5:00 p.m., the balloons took off at five-minute intervals until all 14 entrants were in the air and heading in a general easterly direction, the lower ones going a bit north of east, the higher ones a bit south of east. Our balloon, the Army Entry No. 1, being in ninth position, took off at 5:45 p.m., and flying low headed up towards New England. We had hardly left the ground when we saw that directly ahead of us and about ten miles distant was a high piled cumulous cloud from which issued omnious rumblings, flashes of lightning and, as we found out later, rain, hail, death and destruction. Having been in storms before, we were not dismayed and even decided to stay low in order to save gas, run into the storm to gain speed and stay with it until night caused it to dissipate.

We had not long to wait. In about forty minutes our speed had picked up from eight miles an hour to twenty. We were directly under the cloud and starting to rise with the rising convection current that fed the cloud. Wishing to stay low, we valved, but continued to rise even more rapidly as the current became stronger. We reached our pressure height at 1,000 feet and continued rising at a rate of from 800 to 2,000 feet per minute, spilling gas from the appendix as we went until at about 5,000 feet we began to descend as rapidly as we had climbed. And with us came the rain in gobs and scads, rivulets and small oceans, while we whirled, eddied, jostled and spun in the most violent set of cross currents I have ever encountered, meanwhile being shocked when the lightning sizzle and jolted when the thunder roared.

More or less expecting to be struck by lightning, we put on our parachutes when we entered the clouds and, figuring that if we were we might be only knocked out rather than killed, we took thisprecaution. Sitting on the edge of the basket with our centers of gravity well out in space, we tied strings from our rip ring to the basket suspension ropes so that in case we were knocked out we

would fall out of the balloon, our parachutes would open and we would descend in one piece, rather than with the unmanned and probably burning balloon.

Thus we rose and descended until we left the cloud and saw the earth 1500 feet below. Then we got busy checking the descent of our craft. Alternately we poured sand, bag after bag, until we had poured twelve bags and checked our downward velocity to 800 feet per minute. Then we cut loose our drag rope so that it hung down below us, and waited for the earth to fly up and spank us.

While waiting I had a chance to look around and saw balloons all about us, some of them performing the most undignified stunts and all of them showing the loss of from a third to one-half of their gas. Northeast of us the Pittsburgher chased the Army Entry No. 2, piloted by Lieuts. Everts and Ent, up a valley; north of us Capt. Honeywell sat like a huge stationary mushroom in a small terrestrial depression; while from above Van Orman and Morton started down, caught up with us and flashed past us in a shower of sand as they cut bag after bag in a vain attempt to check their descent. We watched them strike, and up they came again like a rocket, disappearing in the cloud above.

Then we hit. And how! And hardly had we hit than the ground wind had us i its clutches, racing us over the ground, sometimes at velocities of from 50 to 60 miles per hour while our static heaviness caused us to kiss Ma Earth every three or four hundred yards. There is nothing on earth more exhilarating than hedge-hopping in a free balloon at a high rate of speed. We crashed through trees, fences, telegraph lines, always keeping the balloon statically heavy so that we would lag behind the central fury of the storm by our friction over the earth until, as we sped over a small rise, we found ourselves face to face with the worst menace to free ballooning - a high tension power line.

With about 30,000 cubic feet of very inflammable hydrogen gas only a bare ten feet above our heads, with every stitch of our clothing and equipment soaking wet and oozing water, standing knee deep in sand, instruments, water, angel cake, ham sandwiches and bananas (all this chaos due to our violent contact with terrestrial obstacles) we sped at the rate of 50 miles per hour toward six power lines, each carrying about 50,000 volts of most excellent electricity and so placed that they would strike us just about three feet above the load ring. We knew that the instant any two wires were short circuited there would be spark enough to fire a year-old Dunhill lighter, and that even the smallest spark would ignite the gas, thereby causing all young officers below us to gain two files on the promotion list. Ruth Snyder and Judd Gray stepping through the little green door had nothing on the occupants of Army Entry No. 1.

What people do at times like that is interesting. Vogue would have had us light a Murad. But we were too wet for that and, besides, we hadn't any Murads. Possibly we should have read a chapter of the scripture, picked a lily and reclined in a pose suitable for marble slab decoration purposes. What we actually did was call a certain famous biblical character most familiarly by his two first names, grab a handful of wet hemp, and set ourselves for the shock, be it dynamic, electrical or thermal.

It was none of the three. Just then Lady Luck tossed a horseshoe at the seats of each of our soggy trousers and we went through the power lines like Charlie Paddock through a yarn thread. Allah alone knows why, but there was no spark as we broke all six wires and kept moving toward where a railroad ran in the shade of a twelve-wire telegraph line. Comparatively, that telegraph line was as harmless as a garter snake beside a rattler. It was less venomous but it was stronger. We hit it, crashed through eight wires, slid along the remaining four until we hit a pole, lifted the pole out of the ground, went on a few yards with the pole wedged firmly between two suspension cables and came to a halt in a grove of trees on the edge of a stream. "And there we were ketched," and thrashing around like a tom cat in a croaker sack.

But our apparent misfortune was our salvation. The storm we were riding, though violent, was small, typically Napoleonic, and the five minutes we used in extricating ourselves from the spreading arms of the pole's cross piece was sufficient to allow the storm to pass on. By the time we were free the storm had left us and was already abating.

Free of the pole, our next problem was the trees, and this solved, we yet had to make ourselves statically light enough to float in the air. This was accomplished in a rather unique manner. Around our basket we had placed, prior to the take-off, a rubberized fabric envelope, so that in case we landed in water - the Great Lakes, Chesapeake Bay or what have you - our basket would become a boat in which we could float for a time and remain dry. The rain reversed the process

by placing the water inside the basket cover so that there we stood ankle deep in about 400 pounds of water. This water had replaced the sand we expended during the storm and gave us a superfluity of ballast besides. We knew that if we lost all the water, literally "the sky would be the limit" of our altitude. But we must loose some, the superfluity, or stay put. What we did was this: Very carefully with a large sheath knife we cut a small slit in the envelope, well over in one corner of the basket. Then we stood over that hole, our weight tilting the basket that way until enough water had drained out to make us sufficiently light to take off. As we started to rise we walked to the opposite corner, tilting the basket in the other direction, and our theory worked. The hole was above the remaining water, which accompanied us as ballast.

Now that we were satisfied that we could fly, our attention turned to ourselves whom we found as pathetic spectacles as Chester Conklin in the Fire Chief. Soaked to the skin, our food a total loss, we faced the already lowering night, which bid fair to be rather chilly, without too much enthusiasm. The balloon, shedding water a bit faster than the contracting gas, due to increasing cold, lost lift, needed no attention, but continued to gradually rise and slowly drift in a southeasterly direction. This gave us a chance to take off and ring our clothing which, being the driest we had, we put back on.

By this time we were at 5,000 feet and our speed to the southeast had increased to fifteen miles per hour. But, Oh Boy, it was cold. Our hands were shrivelled from being wet, our lips were blue, and our teeth chattered like two skeletons with inflammatory rheumatism having congested chills on a tin roof. At 5200 feet it started to snow, and at 7400 feet, our maximum altitude, ice began to form on the rigging, in our drinking water and on our clothing. But our speed steadily increased until it reached about thirty miles per hour, and our spirits accordingly rose.

All through the night, which was alternately moonlit and overcast, depending whether we were above or below the clouds, we froze and thawed. Freezing as we rose, thawing as we reached the warm strata of air which extended to about 500 feet above the tree tops. As the night passed we entertained each other by recalling experiences during which we had been the hottest.

The flight continued like Briggs' dialogue of Mr. and Mrs., "far, far into the night." The application of our knowledge of navigation rather lost itself by the wetness of our maps and our more or less natural mental apathy and physical inertia. Besides, when we moved our bodies found previously untouched areas in our clothing that, due to lack of contact, were surprisingly cold. Our navigation, then, consisted in an occasional compass check of our direction and conjecture, from our general knowledge of the country, of what town that patch of lights might be or what river that silver ribbon was.

And so on unendingly till morning when, just as the dawn broke, we drifted out over the Rappahannock river and became sufficiently alarmed to find the least sodden map and accurately check our location.

Our flight ended due to the proximity of the Atlantic Ocean, and the very commendable hesitancy on our part to dim Lindbergh's glamor by making a trans-Atlantic flight in a free balloon. For these reasons, then, we landed at Weems, Va., rolled and packed our balloon, and the flight of the Army Entry No. 1 was over. Having located and voraciously attacked large quantities of heat-cured groceries, we hied us to a most generously proffered bed and hauled down the mental curtain for a long intermission.

It was not until we awoke some hours later that we learned about the storm-caused disaster, or that we had won the race. And as one counteracted the other, our elation at winning was overshadowed by our sorrow of having lost the friendship of two real he men, two regular buddies - Evert and Morton.

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REPRESENTATIVE JAMES RESUMES INSPECTION OF MILITARY POSTS

Representative W. Frank James, of Michigan, ranking member of the House Military Affairs Committee, left Washington June 13th, piloted by Lieut. Harry A. Dinger, A.C., in the Fokker Transport, to inspect housing conditions at military posts. Major-General James E. Fechet, Chief of the Air Corps, piloted by Lieut. Elwood R. Quesada, left the following day in the General's new Douglas O2-J, to join Representative James at some of the Air Corps posts.

Norton, Chanute, Scott and Selfridge Fields have been visited to date, and Mr. James' itinerary calls for visits to Fort Brady, Michigan, and Fort Snelling, Minn.

LIEUT. NELSON RESIGNS FROM THE ARMY

Through the acceptance by the President of the resignation of Lieut. Erik H. Nelson, effective June 30th, the Army Air Corps lost one of its most experienced and competent pilots, an expert aeronautical engineer and a man of colorful personality. Lieut. Nelson is best known as one of the Army pilots who encircled the globe by air. Incidentally, his return to civilian life after a span of ten years in the Air Corps, which were punctuated all along with outstanding achievements and service of a high order of merit, leaves in that branch of the service at the present time only one of the six Army airmen who flew around the world in 1924 - Captain Lowell H. Smith, leader of the flight.

Lieut. Nelson leaves the service to become affiliated with the Boeing Aircraft Company, manufacturers of the Army pursuit plane, two of which were recently flown a distance of over 3800 miles from France Field, Panama Canal Zone, to Washington, D.C., by Lieuts. Douglass and Parker, Air Corps.

Lieut. Nelson was born in Stockholm, Sweden, June 12, 1888. After finishing high school he pursued a course of instruction for two years in a technical school in Stockholm. Of a roving disposition in his early years, he shipped upon a German sailing vessel, and in the five years that followed sailed under almost every flag and in all parts of the seven seas. Relatives prevailed upon him to cease his roving and complete his education. He took up engineering work, spent a short time in the automobile business, and then affiliated himself with the Curtiss Aeroplane Co., as aviation mechanician. He became a naturalized American citizen November 16, 1914.

During the World War Lieut. Nelson enlisted in the Aviation Section, Signal Corps, and was sent to Cornell University for his ground school training. Upon graduation he was sent to Ellington Field, Houston, Texas, for flying training. Qualifying as a Reserve Military Aviator, he was commissioned a 2nd Lieutenant on April 22, 1918. He remained on duty at Ellington Field as flying instructor, and on more than one occasion was commended for the excellent performance of his duties. Lieut. Nelson was considered to be the best DH4 pilot in the Air Corps. He has, however, flown over 20 different types of airplanes during his Army career.

Among the many notable flying achievements to his credit were the following:

In January, 1919, Lieut. Nelson flew a plane over the Grand Canyon of the Colorado, and enabled a photographer to take aerial photographs of it for the first time. This 4,000-mile trip was known as the Flight from the Gulf to the Pacific and return, and was the beginning of extensive cross-country flying in America.

Late in the summer of that year Lieut. Nelson with a squadron of four planes visited 32 different cities, crossed nearly every State in the Union and flew a total of 7,000 miles in the interest of recruiting work. He was the chief engineering officer of this flight, but piloted his own plane and returned to his home station with a record of not a single forced landing.

In the Spring of 1920, when the Air Corps decided to attempt that difficult project of a flight from New York to Nome, Alaska, and return, Lieut. Nelson was chosen as engineering officer of the expedition. On one occasion during this flight, a "hop" of 5½ hours over the mountains of British Columbia, he spent part of the time riding in the freezing cold wind astride the fuselage in order to balance the nose-heaviness of the plane. Frozen and blinded by the icy blasts from the propeller, he stuck it out to the end. As the plane landed, the landing gear, caught in the rough terrain, was wiped off and Lieut. Nelson was catapulted clear over the top wing and far ahead of the ship onto the frozen ground. When the other pilots in the flight saw this and hastily landed they found him a little stiff but hard at work repairing the damaged landing gear.

It was this quality in his make-up, together with his marvelous understanding of motors, which resulted in his selection as a member of the Porto Rican Flight and the Around-the-World Flight. According to the Commander of the Alaskan Flight Captain St. Clair Streett, Lieut. Nelson's services as engineering officer were responsible for the success of the expedition, stating that his expert knowledge of motors particularly and airplanes generally was of unlimited value, and his knowledge of aerial navigation was indispensable.

In 1922 in the International Air Races at Detroit, Mich., Lieut. Nelson was the winner of the Detroit News Aerial Mail Trophy Race, piloting a Martin Bomber

at a speed averaging 110 miles an hour.

In the Porto Rican Flight in 1923, in which 12 Army airmen participated, utilizing six DeHaviland planes, Lieut. Nelson increased the good reputation he had already earned as pilot and engineer. Upon its completion the Secretary of War, in a letter commending his services, stated in part:

"The fact that this flight of nearly 6,000 miles was completed on schedule time is evidence of good flight organization and is a tribute to your technical ability and mechanical knowledge which enabled you to continually keep your airplanes in excellent flying condition. Constant diligence and high esprit were necessary to perform frequently such hazardous over water flights as this expedition required."

Lieut. Nelson is given the credit of being one of the first to propose that American aviators be sent around the world. Designated to consult with the designer of the World Cruiser, Mr. Donald W. Douglas, as to various changes to be made in this plane to meet the service which would be required of it on such a project, Lieut. Nelson had extensive conferences with him and recommended the purchase of a trial plane by the Air Corps. He worked closely throughout the construction of this airplane, and flew it east after only two or three hours in the air at Santa Monica, Calif. It was tested as a land plane at Dayton, Ohio, and as a seaplane at Langley Field, Va., and met with the highest approval of all pilots and Air Corps engineers. Later the four cruisers, which set forth in April, 1924, on the famous world voyage, were built - duplicates of the trial plane.

How the World Flight was carried to a successful conclusion is now history, as is also the wonderful reception accorded the flyers by their admiring countrymen. Lieut. Nelson was one of three of the World Flyers who was advanced 500 files on the promotion list by an Act of Congress in recognition of his achievements on this flight. As a member of the flight he was also awarded the Distinguished Service Medal and received permission from Congress to receive decorations from foreign countries. One of these decorations was from the King of Sweden, who conferred upon him the Royal Order of the Sword as an expression of the esteem and admiration of the people of Sweden. Another decoration was that of Chevalier of the Legion of Honor from France. Tufts College conferred upon him the honorary degree of Master of Science.

Following the World Flight Lieut. Nelson was assigned to duty as Air Corps representative at the Douglas Aircraft Factory at Santa Monica, Calif.

His resignation from the military service is a distinct loss to the Air Corps and the Army.

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STORM CREATES HAVOC AT BOLLING FIELD

By the News Letter Correspondent

Sweeping down upon the airdrome at 100 miles an hour, a thunder-squall struck Bolling Field on Saturday afternoon, June 16th, at 4:13 p.m., unroofing two hangars and leaving in its wake a field littered with wrecked and battered airplanes. The damage to equipment is estimated at approximately $200,000.

A total of eleven planes, eight of which were on the line and three in one of the hangars, were damaged and tossed about like leaves by the gale. Some of the planes on the field were blown more than 200 yards through the air before crashing to earth in a battered heap. One of these, an old DH, landed full upon an ambulance with three occupants, bowling it over and wrecking the body.

Lieut. Ford L. Fair, who had just landed in a Martin Bomber from Langley Field, was a passenger in the ambulance, and was knocked unconscious when thrown clear of the vehicle and buried beneath the DH. Private Eugene Tully, who was driving, and Capt. W. P. Finley, another occupant, escaped without injury.

The blast struck the field at exactly 4:15 p.m., and lasted only 2½ minutes, but it was some 2½ minutes. Just five minutes before the squall reached the post, the Hon. F. Trubee Davison, Assistant Secretary of War in Charge of Aviation, took off from the field for New York. He was piloted by Captain Ira C. Eaker, who flew with him on his Panama inspection trip.

Lieut. H.F. Brown, en route to San Francisco in an O2, had just left his plane "on the line" after a flight from Langley Field, when the gale struck. He had walked about 200 feet, he said, when the squall lifted his ship and hurled it after him. By running he got out of its path, and the O2 brought up against an O2-A, wrecking both beyond hope of repair.

Aircraft quartered in hangar No. 8 was showered with tin and cellutex sheets, when the squall unroofed the structure. Four ships escaped injury, but three suffered minor damages. They were a Loening OA1B, an O1-C Curtiss and a Douglas O2-H. A Curtiss P1, resting between hangar 7 and Hangar 8 was not disturbed.

At least two planes en route to Bolling Field from Langley Field successfully "rode through" the storm. One of these was an O2, occupied by Lieut. R.W. Douglass, Jr. and Lieut. James E. Parker, who changed their course after running into the storm, landing some ten minutes later. Lieut. Elwood Quesada was another to weather the gale.

"It was rather bumpy," he said on landing, "but I didn't know how bad it really was until I reached here. When I saw planes strewed all over the field I thought two formations had run into each other."

Lieut. Quesada's automobile, a heavy coupe, which was parked on the reservation, was blown 100 yards before it brought up against Hangar No. 7, and a Douglas Transport C1C, which was being taxied to the hangar by Corporal J.G. Moran, was picked up by the gale and dropped down on the roof of the vehicle. Moran escaped uninjured, but the automobile and plane received considerable damage.

Although last November's tornado followed approximately the same path as yesterday's squall, the Naval Air Station caught the full force of that gale, and Bolling Field escaped scott free. In this case it was the reverse. Only minor damages were reported at the Naval Air Station. A porch was blown from the administration building there, and a Vought Corsair plane in one of the hangars was cut by glass from shattered windows.

Planes damaged on the field, according to the inventory conducted by Major Davidson, included the DH that collided with the ambulance; a light Travelair commercial ship which was blown into a Martin Bomber; two O2 ships that crashed to earth together; an O1 that was entirely destroyed; a P1, slightly damaged; the Douglas Transport C1 that was dropped upon Lieut. Quesada's car, and Lieut. Fair's bomber.

Unroofing Hangar 8, the freak wind swept skyward over Hangars 6 and 7, swinging earthward again to carry away the iron roofing on Hangar 5. This structure, which was badly burned in a fire at the field some months ago, had only recently been rebuilt, and workmen had just completed laying the steel roof.

Lieut. Floyd A. Lundell, who was on duty as officer of the day when the storm arrived, immediately swung a cordon of guards about the field to keep back all visitors. Newspaper men and others viewing the wreckage were not allowed to smoke. A number of the ships were soaked in gasoline from their own battered tanks, and officers at the post were "taking no chances." Witnesses were interviewed by Capt. Robert E. Ellis, who collected material for a written report.

According to the story told Capt. Ellis by Pvt. Tully, who was driving the ambulance when the storm struck, the vehicle was being used to transport the luggage of Lieut. Fair and Capt. Finley, who had just landed in the bomber. Lieut. Fair and Capt. Finley were aboard. When the DH hit the ambulance Tully said he was hurled clear. He got quickly to his feet and ran for the Operations Office to avoid the flying debris, he said. Capt. Finley and Lieut. Fair were buried in the wreckage, but only the latter suffered even minor injuries.

Private 1st Cl. Gilbert M. King, a mechanic who was sitting in a Crissy Field plane with the motor running, waiting to taxi into the hangar, gives the following account of his first solo flight:

"I was seated in a Crissy Field Douglas O2 airplane at the end of the concrete runway between Hangars seven and eight when it started raining. I thought nothing of it at first until the wind started to blow real hard when I kicked the rudder pointing the plane's nose into the approaching storm, after which I sank down into the cockpit out of the rain to await the housing of a Douglas C1-C with which another mechanic obstructed my entrance to the hangars.

I heard a roar and howl as the cyclone struck with full force - the plane which I was in suddenly rose from the ground tail foremost and instead of dropping to the earth again kept rising until it was about fifteen or twenty feet up and started traveling backwards at no small rate of speed. In the meantime several other planes that had occupied positions on the line were flying around this way and that to the tune of cracking wings, grinding tail skids, and the deep bellowing of the storm.

One plane in particular, an O2 especially built for General Fechet when he

was Asst. Chief of the Air Corps, looked as if it was a rat grasped in the jaws of some huge hound, being whipped along the ground until it landed on the right wing of the plane I occupied.

I had cut the switches in the plane when it left the ground to prevent fire and it finally crashed approximately 300 feet from where it had left the concrete runway."

After the storm had passed the balance of the afternoon and all day Sunday were spent in clearing away the wreckage and taking stock of the damage.

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NEW CLASS AT THE ADVANCED FLYING SCHOOL

The new class at the Air Corps Advanced Flying School, Kelly Field, Texas, is scheduled to begin July 9th. Organizations on the field are engaged in overhauling planes and getting other equipment in shape for another busy term of four months of questionable landings and wobbly take-offs. The shortage of equipment is almost as acute as heretofore, although nine A-3's and several O-11's have been received within the past month. The AT-4 situation is worse than at any time since AT's were adopted for use in pursuit training. These ships have been going, via complete washout, for the past three months. At first it was an unusual thing to lose one plane; now they are disappearing two at a time. With only eleven AT-4's and three AT-3's left, and with 40 prospective students for the July class, the senior instructor of the Pursuit Section is engaged in a lot of"contemplation" these days. Within two weeks, according to the latest reports, a "large number" of these little ships are expected to arrive from the factory and from Langley Field - whether they actually will be delivered is yet a matter of conjecture.

A flight of nine NBS-1's arrived this week from Langley Field, thereby offering the Bombardment Section a possibility of continuing training for the next class.

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AIR CORPS PLANES ASSIST AT CAPITAL PAGEANT

By Bolling Field Correspondent

On June 3rd a pageant was staged in Washington to celebrate the centennial of the opening of the Chesapeake and Ohio Canal.

The wooded ravines above Chain Bridge in historic Georgetown reverberated to the songs of the past and echoed the voices of men long dead, as time harked back a hundred years to the day when President John Quincy Adams turned a spade of earth and opened the Potomac River to carriers of commerce. The actors in the Pageant were placed on canal barges at the Fletcher wharf, but those who made the arrangements had not counted on the traditional disposition of Army mules, selected from the Fort Myer stables, to do the towing.

The first barge moved away slowly, smoothly and with little ado, but the second encountered trouble on the towpath from the start. The two mules attached to its tow lines defied the soothing ministrations of their Fort Myer drivers and ever threatened to break their traces and gallop away into the woods. They ended it all by jumping into the canal.

For half an hour the team swam up and down in the canal, ever eluding those who sought to recapture them until finally the passengers of the second barge were compelled to transfer to the first one which carried the chorus. Meanwhile, Army, Navy and Marine Corps planes roared overhead - possibly they helped to scare the mules.

The planes withdrew and the ceremonies proceeded. After the turning of the earth and other ceremonies incident to the pageant, the planes returned and gave an inspiring exhibition of pursuit and acrobatic flying.

All types of aerial transportation were represented in this formation, the Navy furnishing two single-seat and one two-place Vought planes, and the Army sending out Capt. Robert E. Ellis in a PW-9; Captain Donald P. Muse in an O-11 with Mr. John Arnold Cannon, Chairman of the Aircraft Committee for the Pageant, as passenger; Lieut. Elwood R. Quesada with a mechanic in an OA-1C, and Lieut. Bob E. Nocland, Operations Officer of Bolling Field, with four passengers in a C-1 Transport.

LIEUT. ENT'S REPORT ON ACCIDENT IN BALLOON RACE

Lieut. U. G. Ent, Air Corps, who miraculously escaped death when the ill-fated Army Balloon No. 3, shortly after the start of the National Elimination Balloon Race from Bettis Field, Pittsburgh, Pa., May 30th last, was struck by lightning, resulting, unfortunately, in the death of Lieut. Paul Evert, the pilot, submitted the following official report on the flight:

"1. The U.S. Army Balloon #3 (Goodyear bag #35-242) had a capacity of 35,000 cu. ft. and was filled with hydrogen gas, which was about 98% pure, giving a total life of about 2450 lbs. The weight of the balloon and equipment was about 800 lbs., the Pilot and Aide 360 lbs, 14 bags of sand 700 lbs, instruments, food, and other necessary equipment about 540 lbs., with a surplus lift of about 50 lbs.

2. It may be well to explain in general two experiments which were to be tried in this balloon. First, direction finding by radio, on which no comment will be made other than that two loop antennae were used on one set; second, the balloon was to be flown under pressure. To accomplish this, the appendix was tied shut, a manometer gland and tube were fastened to the balloon and connected with a manometer in the basket. This experiment had been tried by noted balloonists in previous flights, with indifferent success. Lieut. Evert was of the opinion that it was a sound idea and would greatly conserve gas by enabling the pilot to quickly reach an equilibrium point without overcontrol. It was decided to fly at one inch of water pressure on the manometer, estimating that the pressure at the top of the balloon would be two and one-half times as great, this would be well within the bounds of safety.

3. The other instruments used were: statascope, altimeter, barograph, compass, and rate of climb indicator. In addition, pioneering equipment, food, water, and two cylinders of helium were carried in the basket.

4. A passing comment on the weather will suffice. Conditions at Bettis Field, prior to the race were unsettled with threatening thunder showers. The sun was shining at the time of the take-off, and there were no immediate indication of a storm.

5. The Army Balloon #3 took off in the #3 position at 5:15 p.m., Eastern Standard Time. With a southwest wind it was necessary to take off 50 pounds light to clear the crowd.

6. The Balloon ascended at about 300 feet a minute to 2100 feet, where equilibrium was established with one inch of pressure. Clouds were forming, the alternate effect of sun and clouds caused the balloon to oscillate up and down considerably. A direction almost due East was taken while the two previous balloons were considerably to the North. About 30 minutes after the take-off, a thunder shower became apparent and parachutes were fastened on by the pilot and aide. The balloon was immediately caught in an up current which took it to 6,000 feet, the maximum rate of ascent was about 1500 - 2000 feet per minute. At 6,000 feet the clouds were dense, hail and some snow were encountered. It was decided to get under the storm if possible and without further warning the balloon started down through the clouds, which were constantly illuminated by lightning flashes.

A maximum rate of descent of 1500 feet per minute was reached and the balloon was checked beneath the clouds at about 1000 feet. The advisability of using the drag rope was discussed, and it was agreed that this was the safest course. In getting closer to the ground a down current was encountered which was not sufficiently checked and the basket hit the ground, tearing off the loop antennae of the radio set. The set was of no further use, so it was thrown for ballast. About this time Lieut. Evert called attention to a balloon which dropped out of the clouds at a terrific rate and disappeared behind a hill. The drag rope was now touching the ground and this position was maintained with the exception that the basket was several times thrown into trees and other obstacles, once scraping the roof of a farm house.

About this time a parachute appeared out of the clouds followed by a balloon entirely deflated parachuting perfectly with what appeared to be the figure of a man hanging over the side. Instructions were given by Lieut. Evert to a farmer on the ground to immediately pick up these men. Shortly after this the drag rope shorted two high tension wires with an accompanying spark. At this time we were nearing a small town, and the drag rope took a half hitch around a large telephone cable and held the balloon. The equivalent of two bags of ballast were dropped to jerk the rope free, without success. A crowd quickly congregated and

with instructions from the balloon cut the rope free. The balloon was fast about ten minutes. During this time the advisability of landing or flying until darkness was discussed and the latter course decided upon. When the balloon was released, it gained an altitude of about 1200 feet before it could be checked. At this point a heavy explosion was heard and Lieut. Evert collapsed, Lieut. Ent was knocked off his feet and fell on Lieut. Evert. (From this point a report will be made in the first person.)

My left leg and right arm were paralyzed temporarily by the shock. I got to my feet and was aware the balloon was on fire at the top from the smoke and the commotion from the crowd below on the ground. Efforts to revive Evert were ineffective, but feeling his pulse, I thought he was alive. My first thought was to throw him over the side and trip the parachute, but considered this not practical, due to the type of chute. I decided to jump, but after getting on the side of the basket changed my mind. The balloon was falling at about 200 feet per minute, but accelerating. It was not possible to valve, due to the danger of an explosion. The maximum rate of fall was about 700 feet per minute. To check this, avoid landing near some building, and to try to land in a small creek, all available ballast was thrown. The balance of the gas burned quickly at an altitude of about 15 feet. The net was apparently slipping on the bag and the basket landed on the bank of the stream with little jar. The burning bag fell away from the basket toward the stream and continued to burn. With the aid of bystanders, Lieut. Evert's body was removed and artificial respiration applied. Dr. H. A. McMurray, of Youngwood, Pa., was on the scene of the accident about three minutes after the landing and pronounced Lieut. Evert dead. Before leaving I put the basket and equipment under the guard of the Youngwood Fire Chief, who had it removed and prevented the theft of the remaining property.

7. Lieut. Evert's body was taken to Greensburg, where an inquest was held, and it was found that the death had resulted from an electrical shock. The landing was made at Foxdale, Pa., 1 mile south of Youngwood, Pa. * * * * *

9. In my opinion lightning did not strike the balloon. I believe that a heavy charge of static was responsible for Lieut. Evert's death and the subsequent fire and that this charge may have been generated around the valve by the escaping gas. I am not sufficiently an expert to advance more of a theory than above.

10. In my opinion, an explosion or quick combustion of the balloon and the basket was prevented because of the fact that the appendix was tied and there was no possible means of the air mixing with the gas. I believe that if the appendix line had been released and the bottom of the balloon had been free to rise that the increased pressure on the gas in the bottom of the balloon would have increased the rate of combustion and may have caused an explosion. * * * * *"

The Commanding Officer of Langley Field, Va., in his indorsement forwarding Lieut. Ent's report to the Chief of Air Corps, states:

" * * Second Lieut. . Ent, Air Corps, showed great presence of mind, fortitude and bravery in bringing to successful landing the balloon in question when same was on fire and liable at any time to explode. Lieut. Ent could have jumped with his parachute, but not knowing for sure whether any life still existed in the body of Lieut. Evert, he chose to remain with the balloon and bring same to a safe landing, thereby recovering the body of Lieut. Evert and being able to administer first aid treatment.

The accident recorded above marks the second time in the history of the Air Corps that lightning proved fatal to Air Corps participants in balloon races, the first accident of that kind occurring on September 23, 1923, during the Gordon-Bennett International Balloon Race which started from Brussels, Belgium, and which resulted in the death of 1st Lieuts. Robert Olmstead and John W. Shoptaw, pilot and aide, respectively, of the Army Balloon S-6.

Lieut. Evert was born at Sparta, Wisconsin, August 8, 1895. He graduated from the La Crosse Normal School in 1916. During the War he attended the Field Artillery Training Camp at Houston, Texas, and was commissioned a 2nd Lieutenant of Field Artillery August 15, 1917. Ordered to duty overseas, he served for nine months with the 78th Field Artillery, in the course of which he attended a school for aerial observers in France. He resigned from the service on November 11, 1919, but reentered the Army on July 6, 1921, when he was appointed a 1st Lieutenant in the Air Corps. He completed his primary flying training at

Carlstrom Field, Arcadia, Fla., and his advanced training at Post Field, Fort Sill, Oklahoma, being rated an Airplane Pilot on June 21, 1922. He was assigned to duty with the 12th Observation Squadron at El Paso, Texas.

On September 17, 1925, Lieut. Evert graduated from the Balloon and Airship School at Scott Field, Ill., and was rated Balloon Observer and Airship Pilot on September 28th of that year. He was then assigned to duty as student at the Communications School, Chanute Field, Rantoul, Ill., graduating in June, 1926, and being assigned to duty at Langley Field, Va.

The death of Lieut. Evert is keenly regretted by his many friends in and out of the service. The News Letter sends its condolences to his bereaved family.

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COMMENDATION FOR MASTER SERGEANT WM. J. BENNETT

The Chief of Air Corps in a recent letter to Master Sergeant Wm. J. Bennett, Air Corps, stationed at the Fairfield, Ohio, Air Depot, paid tribute to his character and ability as a balloon pilot and commended him most highly for the courage and thoughtfulness displayed by him on the occasion of the recent National Elimination Balloon Race which started from Bettis Field, Pittsburgh, Pa.

Sergeant Bennett was authorized by the War Department to pilot one of the contesting balloons, the "Sun-Telegraph Pittsburgher". His Aide was Mr. Walter Chambers, Aviation Editor of the Pittsburgh "Sun-Telegraph," who was then making his first free balloon flight. This balloon was one of the number which encountered the severe storm shortly following the start of the race.

The conduct of Sergeant Bennett is best described in a letter which Mr. Chambers addressed to General Fechet, and which reads as follows:

"You recall, no doubt, that at my special request Master Sergeant Wm. J. Bennett, Wright Field, Dayton, Ohio, was allowed to participate in the National Balloon Races as pilot of the "Sun-Telegraph Pittsburgher". As Sgt. Bennett's aide in the flight which came to so disastrous an end I wish to pay a humble tribute to the character of the man and the ability of the Sergeant.

Sgt. Bennett's every thought throughout the period which I now know to have been deadly dangerous was for my safety, and it being my first balloon flight I was sublimely ignorant of the danger through which we passed. Even in that last moment before we finally crashed thru the trees, with the valve and the rip-cord lines hopelessly fouled, with the jolts knocking him repeatedly to the bottom of the basket, he told me repeatedly to "keep your head under the basket." Our balloon finally came to rest, clinging to the side of a precipitous mountain.

I am proud of an Army that has enlisted men of such high caliber, and I wish that it were within my power to have him cited to his commanding officer for the unexampled bravery and unselfishness with which he faced what everyone now deems was the almost certainty of death. I repeat that until within ten seconds of our final stop, when I realized that perhaps I would be dead in another minute, I was entirely ignorant of the danger into which we had been thrown.

You will pardon my verbosity, but I feel that Sgt. Bennett's heroic conduct warrants my telling you that as we entered thisstorm he made me put on my parachute without telling me what we were getting into, and that in less than eleven minutes we had been swept to an altitude of 7000 feet and hurled again to the ground. Finally, looking after me and throwing ballast from the balloon which went up instead of down, Sgt. Bennett offered to sacrifice himself for my safety."

Master Sergeant Bennett, who holds a commission as 2nd Lieut. in the Air Corps Reserve, as well as the rating of Junior Airship Pilot, is a graduate of Tufts College Engineering School, Class of 1924. During the War he enlisted in the Aviation Section, Signal Corps. He advanced through various noncommissioned grades to Master Signal Electrician, receiving that appointment Sept. 16, 1918. All of Sergeant Bennett's service in the Army has been in connection with lighter-than-air activities. While on detached service at the Goodyear Tire and Rubber Co., Akron, Ohio, January to July, 1919, he received instruction in the construction, erection and maneuvering of airships. In the latter part of that year he was licensed a dirigible balloon pilot by the Aero Club of America. From January to July, 1922, he was on duty at the Balloon School, Ross Field, Arcadia, Calif., and for six months in 1923 he was on duty at Chanute Field, Rantoul, Ill., in charge of organizing the airship mechanics course. Since that time the major portion of his service was at Dayton, Ohio.

LIEUT. BLEAKLEY'S ALTITUDE FLIGHT
By A. M. Jacobs

Once more the Materiel Division XCO-5, with which Lieut. Macready repeatedly climbed to great heights, has been, under the able pilotage of Lieut. W. H. Bleakley, been adventuring into the scenes of old triumphs. Equipped with the same high lift wings (Joukowsky ST_{ae}-27-A), there have been installed for testing a new Form F-1A supercharger, designed to give sea level pressure up to 30,000 feet, against 20,000 feet with the old Form F, and a duralumin propeller with adjustable pitch.

On June 16th Lieut. Bleakley went aloft, reaching an indicated altitude of 38,000 feet. The liquid oxygen apparatus used was a new Materiel Division type, with container and vaporizing elements separate. A gage in front of the pilot registered the amount of superpressure on the liquid inside the container. Twenty-four pounds, or an amount equivalent to about sixteen bottles of gaseous oxygen, was carried. Two auxiliary bottles of gaseous oxygen, containing 500 liters each, were installed for emergency purposes. A pair of experimental goggles with the lenses electrically heated were worn.

Lieut. Bleakley kept the plane at its high mark for 18 minutes hoping to coax it higher, but when the engine began to overheat and miss, he decided it was time to come down.

His experience as a pilot has been one of the most unique in the Air Corps. Born in County Cavan, Ireland, he is said to be the first native-born Irishman to learn to fly. At the age of fourteen he came to the United States, saw a Curtiss take the air at the St. Paul fair grounds in 1908, and the course of his life was settled. In 1909 he gave up motorcycle racing and boxing, and a position with the Bell Telephone Company, and as did a later hero came to St. Louis to pursue the flying game. There he went into the shops of the Benoist Company. The Benoist Flying School was the third in the country to be opened, having been preceded only by the Wright and Curtiss Schools. The planes were the early stick and wire open models with the pilot perched with his controls out in the air. In January, 1910, he received his pilot's license at the hands of A.B. Lambert, representing the Aero Club of America.

I made my first flight of any considerable length in Lincoln," says Lieut. Bleakley with a grin. "I flew eight miles over the city from the amusement park to the home of William Jennings Bryan, with whom I shook hands. From 1910 to 1913 he traveled over the country by plane, part of the time working with the Pathe Moving Picture Company. In 1916 he came to Mineola, Long Island, as chief civilian flying instructor for the Army. He was commissioned at Brooks Field in October, 1918. He took part in the Hartford Air Meet in 1922; in the bombing of the ice gorges of the Delaware River at Port Jervis, New York, in 1922; in the International Air Races in 1923, and many other events of note.

Few pilots can match Lieut. Bleakley's service in length of time, number of hours flown, variety of planes used, and unique air experiences. There are few who have been on the inside of the flying game through such radical changes in its history. Further tests are contemplated for the XCO-5 before Lieut.Bleakley departs for his detail of foreign service.

On his attempt on June 16th to break the existing record for altitude flight, Lieut. Bleakley, according to the calculations of the U.S. Bureau of Standards, reached 36,509 feet. On that venture into the upper air regions, he used liquid oxygen and, apparently, was in no way affected by his flight. Prior to this flight, however, on May 31st, Lieut. Bleakley made a practice altitude flight, using oxygen gas, and it was over two weeks before he finally shook off the after effects.

Captain M.G. Healy, M.C., Flight Surgeon at the Fairfield, Ohio, Air Depot, and Captain Eugen G. Reinartz, M.C., Flight Surgeon at Wright Field, Dayton, O., collaborated in making a thorough physical examination of Lieut. Bleakley both before and after his last altitude flight.

On the day prior to this flight Captain Healy reported Lieut. Bleakley to be in excellent condition. Examining him subsequent to the flight, Captain Reinartz stated that Lieut. Bleakley responded well in all physical fields to the stresses and strains to which his economy had been subjected, even though he reported having remained at his maximum altitude (38,000 feet indicated) for a

period of 22 minutes. "In the examinations I made," Captain Reinartz continued, "I could find no evidences of marked physical changes, and except for such changed responses to the physical indices, Lieut. Bleakley was in no way affected by his flight.

"This flight demonstrates the feasibility of using liquid oxygen, and by its use relieves the pilot of the necessity of watching the ever decreasing supply in his various tanks, were gas oxygen under pressure to be used. It also proves that a pilot may attain the higher reaches without rhe use of electrically heated suits, with fair comfort, except possibly for the numbing of hands and feet. Except for statistical purposes, the results obtained during the flight were most satisfactory, both from the physical reactions of the pilot and the functioning of his oxygen apparatus."

The physical effects experienced by Lieut. Bleakley on the altitude flights alluded to above may be gained from the following interview Capt. Reinartz had with him:

Q. Lieut. Bleakley, will you tell of your experience, from a physical standpoint, experienced on your altitude flight of June 16?

A. Yes, on the morning of June 16 I prepared for an altitude flight hoping to break the world's altitude record in the XCQ5. I was clothed as follows: two suits of heavy wool underwear, five pairs of silk and wool socks, two wool sweaters, one blanket-lined leather flying suit and two silk mufflers and one pair of silk gloves and one pair of heavy fur gloves, one pair of moccasins, one chamois suit and one pair chamois blanket-lined trousers and one fur-lined helmet and face mask combined. I left the ground at 10:04:52. I was using liquid oxygen which was turned on before I left the ground and as the altitude increased it brought up its own pressure to fourteen pounds at a ceiling of 38,000 feet. I felt no ill effects at any time during the entire flight. As I passed 30,000 ft. I felt quite a sudden change in temperature and noticed that the strut thermometer dropped 10°C. The change was gradual from 34,000 ft to 38,000 ft., reaching a minimum of -52°C.

I had difficulty with my electrically heated goggles which fogged up on me on the right eye, permitting me to see out of one eye only. This trouble occurred at 28,000 feet as I was ascending and remained so until I had again descended to an altitude of 25,000 ft. I was unable to see through the right eye.

I felt quite cold and uncomfortable, especially my hands and feet during the last forty minutes of my flight.

Q. Did you use gas oxygen under pressure at any time?

A. The only oxygen used was liquid oxygen.

Q. How satisfactory do you believe liquid oxygen to be for such flights?

A. To my estimate it was very satisfactory.

Q. Did you experience any difficulty with the oxygen?

A. No.

Q. Did you at any time consciously feel a loss of any of your mental faculties?

A. No, not consciously.

Q. Was there any period, during the time in which you were at your maximum altitude, that you felt any sensation, except that of cold, that you do not ordinarily experience on the ground?

A. I felt a slight slowing up of muscle action.

Q. Describe your sensation with regard to the slowing up of your muscle action.

A. I attempted on two occasions to write but found that I was not clearly able to perform this act and my vision was slow in reading instruments. My faculties were not keen. I felt as though my body were slightly swollen, experiencing difficulty in closing or opening my hands or moving any parts of my body.

Q. Did you at any time notice a shortness or a shallowness of your breathing?

A. I had a tendency to take longer breaths more frequently than normal.

Q. When you took these breaths did you feel the sense of satisfaction?

A. No. My idea was that I didn't quite get enough; I would like to have some more although I did not feel uncomfortable.

Q. Did you at any time during your flight have an opportunity to examine your pulse beat?

A. No.

Q. Did you at any time during your flight experience a pounding in your head

A. No.

Q. Ringing in your ears?
A. No.
Q. A sense of fullness in your chest or abdomen?
A. Yes, slightly here as if my clothes seemed to be a little tight for me; I wanted to move around a little bit and relax.
Q. How long did you remain at your maximum altitude?
A. About 22 minutes.
Q. Would you tell me what transpired on the practice altitude flight on May 31, 1928?
A. On May 31, 1928, I left the ground in the XCO-5 at 8 a.m., using gas oxygen which I turned on at an altitude of 15,000 feet. I had with me two bottles of this oxygen which I thought was sufficient for at least two hours. This flight was for the purpose of a test between 31,000 to 34,000 feet. This test is known as a 'Saw Tooth'. As I reached an altitude of 31,000 feet I encountered cirrus clouds which caused the weather at that altitude to be very rough. As I climbed to 34,000 feet it became so rough that I was forced to cut my test a little short and being so intent on my work I had forgotten to watch my oxygen gauge. As I felt very tired flying the machine in the rough weather I decided to take my last readings and come down. I read my strut thermometer, altitude gauge, oil pressure, water temperature and engine altitude and my last reading was my oxygen gas which showed me that at 32,000 feet I had five pounds of pressure left. Knowing this would only last a minute or so I placed myself in a position so that should I 'pass out' I would have the control stick set forward. I placed my elbow against my body and my hand on the control stick, leaning forward and dropping my head. At that moment I had my hand on the shutter control. As I descended to 32,000 feet I decided to take my hand off the shutter control and place it on the throttle control so as to throttle down my motor. However, I found I was unable to move my hand and after several efforts gave up. I tried to raise my head which was slightly dropped forward but found I was unable to raise it. The machine was slowly descending and I kept a close watch on the second hand of the clock in front of me and tried to count the seconds so as to assure myself as best I could that I was still conscious. As best I know I was fully conscious but unable to move any muscle in my body. I felt as though I were paralyzed. My breathing was very difficult and I felt as though every second seemed an hour. Knowing that I should not move or exert myself in any manner I tried to keep quiet. I remained so until I reached an altitude of 25,000 feet. My vision was very much blurred. My hearing was very distant and my tongue seemed about four times its size. As I reached 25,000 feet coming down, I immediately felt a sudden change and found that my muscles were back again to what I believed to be their normal. I had the strength to raise my hand off the shutter control and place it on the throttle, though with some difficulty. Then I found I had the use of my legs and feet on the rudder, and generally felt stronger. As I descended I became a little stronger. As I landed and taxied up to the line I tried to move but found I had very little strength left to move around. The mechanics helped me out of the machine and as I stood on the ground I felt all tired out and did not want to move. My feet and hands felt very heavy and I felt as though I would like to rest or lie down.

After I had my clothes removed, by mechanics, I thought I could walk to the Operations Office which was about fifty yards distant, but found I was unable to get there without assistance. During the next eight days I felt tired, sleepy and thirsty all the time. I felt tired standing, sitting, or lying down, unable in any position to be at rest. My sleep was very irregular and a gastric disturbance developed which remained with me for over two weeks. My general condition improved very slowly but on the date of my attempted altitude record flight I was examined by the flight surgeons and found to be in excellent physical condition for the attempted record flight.

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MEXICAN ACE MAKES ONE-STOP FLIGHT TO WASHINGTON

By the Bolling Field Correspondent

Captain Emilio Carranza, Mexican cross-country flyer, arrived at Bolling Field at 5:14 p.m., June 12th, from Mooresville, N.C., where he had been forced down earlier in the day by dense fog.

Making a perfect landing, he taxied to a point in front of the stand, which had been erected for the occasion, and was there met by Major Howard C.Davidson,

Post Commander, who reached into the cabin and shook hands with the daring young aviator amid the cheers of the small but enthusiastic crowd.

After shutting off his motor, Captain Carranza climbed out of his plane feet first and, accompanied by Major Davidson, proceeded to the stand, where he was presented to Secretary Davison, Secretary McCracken, Ambassador Tellez of Mexico, and General Summerall, Chief of Staff.

Captain Carranza left Mexico City at 9:10 a.m., Washington time, in an attempt to make a non-stop flight to Washington, D.C., to return the good will flight of Colonel Charles A. Lindbergh from Bolling Field to Mexico City. Flying straight along the course he had decided on, at an average speed of 100 miles an hour, everything appeared to be in favor of the Captain's safe arrival, but fog, the aviator's greatest menace, was settling down towards the earth as the Ryan monoplane winged its way northwards into the night.

Reported over Atlanta, Georgia, at twenty mimutes after midnight, and over Spartanburg, S.C., at 1:45 a.m., the increased speed of the Good Will flyer indicated that he would arrive in Washington between 5:30 a.m. and 6:00 a.m., but those who were on duty at Bolling Field receiving reports and plotting positions realized from the weather reports received from Richmond, Va., and Greensboro, N.C., that the Captain would need the kindly aid of the Goddess of Luck, in addition to all his skill as an aviator, to overcome the almost insurmountable difficulties in his path.

Finally, after an anxious wait of two hours, without any message, word was received from the Department of Commerce Radio Station that Captain Carranza had been forced to land at the emergency air-mail field at Mooresville, N.C., on account of heavy fog.

Major Davidson, Post Commander, when interviewed by newspaper men, stated that the Mexican Ace had used rare judgment in landing, although by so doing he failed in his original intention of making a non-stop flight.

After several hours' sleep, during which time the fog rolled away, Capt. Carranza took off from Mooresville at 1:15 p.m., and after an uneventful flight landed at Bolling Field at 5:14 p.m., June 12th.

Remaining in Washington for a few days for rest and the welcoming festivities, Captain Carranza left Bolling Field for Mitchel Field, N.Y., at 7:00 a.m., in his Ryan plane, escorted by Major Howard C. Davidson, Capt. Robert E. Ellis and Lieut. Robert L. Brookings in three Curtiss Pursuit planes, landing there at 9:05 a.m.

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KELLY FIELD STUDENTS GRADUATE FROM ADVANCED SCHOOL

The first class to graduate from the Advanced Flying School under the Plan "B" system of training at Kelly Field passed"from possibility to actuality" on Monday, June 24th. Unlike classes in the past, in which a large number reported to Kelly Field and few received their wings, every student who reported to Kelly-with the exception of two who were killed - was graduated.

The graduation exercises were preceded by an aerial review, flown by the entire class, consisting of 45 planes. Major Ryan, the ranking student of the regular class, led the review in a P1-B, followed closely, in turn, by 15 AT-4's and 5's, 20 DH's and O2's of the Observation Section, and 9 NBS-1's of the Bombardment Class. The reviewing party was composed of Brigadier-General Albert J. Bowley, Commanding General of the 8th Corps Area; Major James E. Chaney, Commandant of the Air Corps Advanced Flying School; and Major Clarence L. Tinker, Assistant Commandant of Kelly Field.

The graduation program took place at 11:00 o'clock at the Kelly Field Aviation Club. It consisted of - Music by the Air Corps Training Center Band; Invocation by Chaplain John H. McCann; Introductory remarks by Major Chaney; and an address by General Bowley. After his address, General Bowley presented the certificates of graduation to both the regular class graduates and the special observers. Major Chaney presented reserve commissions to the graduating flying cadets. Major Tinker presented pilot's and observer's wings. Chaplain McCann offered the benediction.

The graduates of the regular course are: Major William O. Ryan; 1st Lieut. James F. Phillips; 2nd Lieuts. James S. Stowell, George V. Holloman, Edward H. Porter; 2nd Lieuts., Air Corps Reserve, Lawrence J. Chiappino, Howard B. Cock, Frederick E. Glantzberg, Leroy Hudson, Eugene H. Rice, Paul Shanahan, Lloyd H. Tull; Lieuts., Peruvian Air Corps, Guillermo Concha and Manuel E. Escalante;

Flying Cadets Joseph S. Bartles, Charles E. Bradshaw, Donald Edwin Broughton, Leland C. Brown, Ralph O. Brownfield, Kenneth A. Cool, Paul L. Foster, Edwin Ronald French, Alfred F. Kalberer, Trevor Kenyon, Joel E. Mallory, Isaac W. Ott, James N. Peyton, Frederick A. Pillet, Robert E. L. Pirtle, Joel G. Pitts, George C. Price, William A.R. Robertson, Kenneth A. Rogers, Douglas M. Swisher, Cassius H. Thomas, Charles S. Vaughn, Ronald R. Walker, Roger V. Williams, Stuart P. Wright, Paul B. Wurtsmith, Myron E. Zeller; and Technical Sergeant Paul B. Jackson.

The officers who graduated from the Special Observers' Course are: Majors William C. McChord and Norman W. Peek; Captains Arthur W. Brock, Jr., Ray A.Dunn and John I. Moore; 1st Lieuts. William J. Flood, William A. Hayward, Arthur G. Hamilton, Thomas W. Blackburn, Jasper K. McDuffie, Odas Moon, Newton Longfellow, Walter B. Hough, Paul C. Wilkins; and Warrant Officer Leland D. Bradshaw.

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LOOSE MOTOR COWLING CAUSES AIRPLANE CRASH

By Kelly Field Correspondent

While on the way to Flagstaff, Arizona, recently, Lieut. Harvey L. Boyden, of Kelly Field, crashed his O-2 in the mesquite nine miles east of Comstock, Texas. Lieut. Boyden and Lieut. T.S. Sims had started in separate planes to attend a celebration of the opening of a new airport at Flagstaff. When about ten miles east of Comstock the motor cowling of Boyden's plane in some manner became loose and was thrown up against the center section brace wires and upper wings. It flattened out in such manner that the pilot was unable o see ahead and the flat surface presented to the wind was so large that the plane immediately stalled, even though the motor was wide open. The ship began to settle, at an airspeed of 65 miles an hour, and Boyden was unable to reach a small field ahead of him. The plane struck a tree at the edge of the field.

The field was so small that Lieut. Sims considered it inadvisable to attempt a landing, and he cut his motor and told his mechanic to jump and rescue the pilot and mechanic of the wrecked O-2. At that moment, however, Boyden and his mechanic crawled out from beneath the wreckage. Sims immediately dived down and looked the wreck over, then turned back to Fort Clark for assistance.

Lieut. Boyden found a ranch house close by and, with transportation procured from the rancher, eventually reached Comstock. He met the wrecking truck there and superintended the loading and removing of the plane.

Lieut. Sims continued on toward Flagstaff that afternoon. At El Paso a connecting rod began to give trouble and he returned to Kelly Field the following day.

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LIEUT. B. S. THOMPSON MAKES NOTABLE FLIGHT

Lieut. B.S. Thompson, who will be remembered as a member of the Pan American Flight team, on June 23rd flew a new A-3 from the factory at Buffalo to Kelly Field, between the hours of 6:00 a.m., Buffalo daylight saving time, and 8:30 p.m. Central Standard Time. Lieut. Thompson took off from Buffalo under threatening weather, and for the first 350 miles flew through rain and fog. After that time, however, the clouds lifted and the weather was excellent. A head wind beset him during the entire flight, which explains the length of time required - 15:30. The first landing was made at Chanute Field at 10:00 a.m. Central Standard Time. Servicing of the plane was accomplished hurriedly, and within fifteen minutes he was in the air again. He landed at Muskogee, Oklahoma, at 3:20, and was in the air again at 3:40. He reached Kelly Field after dark and landed at 8:30 p.m.

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GRADUATION OF OFFICERS FROM AIR CORPS TACTICAL SCHOOL

A total of 24 officers graduated June 30th from the Air Corps Tactical School, Langley Field, Va., of which number 13 were Air Corps officers, as follows: Majors Frank M. Andrews, George H. Brett, Roy S. Brown, John F. Curry, Junius W. Jones, Arnold N. Krogstad, H.H.C. Richards, Martin F. Scanlon, Robert L. Walsh, Captains Richard H. Ballard, Willis H. Hale, Robert Oldys and Lawrence F. Stone.

Of the remaining 11 officers, Captains Francis P. Mulcahy and James E. Davis are from the Marine Corps, Capt. Wm. W. Wise, Chemical Warfare Service; Capt. Thomas R. Phillips, Coast Artillery Corps; Major Charles H. Cunningham, Corps of

Major Francis T. Evans

Engineers; Major George E. Arnenan, Field Artillery; Capt. Stuart Cutler, Inf.; Captain Raymond C. Blatt, Cavalry; Major Oscar Morales, Guatemalan Army; and Lieut. Edgardo Bonnet, Argentine Navy.

Major James E. Fechet, Chief of the Air Corps, was the principal speaker at the graduation exercises.

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WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

Changes of Station: Following officers to duty in the Philippines, sailing about September 28th: Capt. Benjamin F. Giles, Ft. Leavenworth, Kansas; 1st Lt. Clarence C. Wilson, Crissy Field, Calif.; 1st Lieut. James L. Grisham, March Field; 1st Lieut. Wm. A. Hayward, Kelly Field - Sailing about September 5th, 1st. Lieut. Charles W. Steinmetz, Office Chief of Air Corps; 2nd Lieut. George A. Whatley, Maxwell Field, Ala.; 1st Lieut. Gilbert S. Graves, Mitchel Field; 1st Lieut. Edward M. Morris, Langley Field; 1st Lieut. Bob E. Nowland, Bolling Field.

Following officers, upon completion of tour of duty in Philippines, to duty at stations indicated: 1st Lieut. John D. Corkille to Wright Field, Dayton, Ohio; 1st Lieut. Corley P. McDarment to Langley Field, Va.; 1st Lieut. Lawrence J. Carr to St. Paul, Minn., as Instructor Minnesota National Guard; 1st Lieut. Robert M. Webster to Hartford, Conn., as instructor Air Corps, Connecticut National Guard.

Major George H. Peabody, Univ. of Calif., Berkeley, Calif., to Langley Field, Va., for duty as student Air Corps Tactical School.

1st Lieut. Virgil Hine from duty with Organized Reserves, Bowman Field, Ky., to Selfridge Field, Mich.

1st Lieut. Francis B. Valentine, from United States Military Academy, West Point, N.Y. to Rockwell Field, Calif., for duty with 11th Bomb. Squadron.

1st Lieut. Thomas L. Gilbert and 2nd Lieut. Cornelius W. Cousland, 12th Obs. Squadron, Ft. Sam Houston, Texas, to 88th Squadron, Fort Sill, Oklahoma.

1st Lieut. Gerald E. Ballard to Brooks Field, Texas, upon completion of tour of foreign service instead of Middletown Air Depot, Pa.

1st Lieuts. Clarence E. Crumrine and Reuben C. Moffatt, Wright Field, to duty in Hawaiian Dept., sailing from New York about Sept. 5th; 1st Lieut. Junius A. Smith, Ft. Sam Houston, Texas, to Hawaii, sailing from San Francisco about September 26th.

Upon completion of tour of duty in Panama, 1st Lieut. James C. Cluck to Wright Field, Dayton, O.; 2nd Lieut. Walter E. Richards to Selfridge Field, Mich.

1st Lieut. Edwin F. Carey, Mitchel Field, to Panama Canal Zone, sailing about November 28th.

1st Lieut. Dache McC. Reeves, Office Chief of Air Corps, and 1st Lieut. Harry G. Montgomery, Wright Field, Dayton, O., to Kelly Field, Texas, to take Observers course of instruction at Advanced Flying School, upon completion of which, former to proceed to Philippines, sailing about Nov. 30th; latter to Hawaiian Department, sailing about Demember 1st.

1st Lieut. Eugene C. Batten from Walter Reed Hospital to Wright Field, Ohio.

Major Harvey S. Burwell, 91st Obs. Sqdn. Crissy Field, to duty at University of California, Berkeley, Calif.

1st Lieut. Lucas V. Beau, relieved from Fitzsimmons Gen. Hospital, Denver, Colorado, and detailed as Instructor, Colorado National Guard, Denver, Colo.

1st Lieut. Peter E. Skanse, Bolling Field, detailed as Instructor, Air Corps, Minnesota National Guard, St. Paul, Minn.

1st Lieut. Eugene B. Bayley, Burgess Field, Pa. to Bolling Field, D.C.

1st Lieut. Charles G. Brenneman, from duty with Colorado National Guard, Denver, to March Field, Riverside, Calif.

2nd Lieut. James A. Ellison, Selfridge Field, to duty with Organized Reserves, 5th Corps Area, station at Bowman Field, Louisville, Ky.

2nd Lieut. Robert L. Brookings, Bolling Field, to duty at U.S.M.A., West Point, N.Y. Orders assigning him to Rockwell Field revoked.

Brigadier-General Wm. E. Gillmore, in addition to present duties as Chief of Materiel Division, designated as Commandant, Air Corps Engineering School.

Relieved from detail to Air Corps: 2nd Lieuts. Thomas E. Binsford and Kenneth W. Treacy to Hawaiian Dept., for duty with Field Artillery; 2nd Lieuts. Leif Neprud and Ralph Finch to Infantry, 2nd Division, Ft. Sam Houston, Texas.

Promotions: Major Henry C. Pratt to Lieut.-Colonel, rank from June 20, 1928.
1st Lieut. Victor H. Strahm to Captain, rank from June 16, 1928.
1st Lieut. Ira R. Koenig to Captain, rank from June 19, 1928.
1st Lieut. Neal Creighton to Captain, rank from June 2, 1928.
1st Lieut. Alonzo M. Drake to Captain, rank from June 9, 1928.
2nd Lieut. John M. Weikert to 1st Lieut., rank from June 2,1928.
2nd Lieut. Wm. L. Scott, Jr., to 1st Lieut., rank from June 18,'28.

Resignation: 1st Lieut. Erik H. Nelson, June 30, 1928.

Reserve Officers to Active Duty to June 30, 1928: 1st Lieut. Murray Clarke Woodbury, Jacksonville, Fla., to Maxwell Field, Ala.; 1st Lieut. Wm. E. Bleakley, Oklahoma City, Okla., to Post Field, Fort Sill, Okla.; 1st Lieut. Harold Harvey Hunter, Maxwell Field, to Mitchel Field, N.Y.; 1st Lieut. Joseph R. Hargrove, Los Angeles, Calif., to Crissy Field, Calif.; 2nd Lieut. John Wm. Persons, Montgomery, Ala., to Maxwell Field, Ala.; 1st Lieut. Charles Wm. Childress, Fort Worth, Texas, to Fort Crockett, Texas; 2nd Lieut. Stuart P. Wright, Kelly Field, Texas, to Selfridge Field, Mich.; 2nd Lieut. Joseph Ray Reed, Lawton, Okla., to Post Field, Okla.; 2nd Lieut. Reginald Heber to Fort Crockett, Texas.

Transfers: 2nd Lieut. Frank G. Irvin, Infantry, to Air Corps, June 12,1928.

Detail to Air Corps and to Brooks Field July 1st for training: 1st Lieut. Walter R. Hensey, Jr., Field Artillery.

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COLOMBIAN PILOT ARRIVES AT BOLLING FIELD

Flying a biplane of Swiss manufacture, equipped with a 9-cylinder Jupiter radial air-cooled motor, Lieut. Camilo Daza, Colombian Army pilot, arrived at Bolling Field at 12:25 p.m., July 3rd, from Mitchel Field, N.Y.

Lieut. Daza is making a flight by easy stages to Bogota, Colombia, and will leave for Langley Field, Va., when repairs and adjustments have been made on his "Wild X" airplane. Lieut. Daza, who is a member of a wealthy South American coffee-growing family, plans to make fourteen stops before reaching his native land, visiting Mexico City and the capitals of all the Central American countries. He has had more than 1500 hours flying time, and learned to fly in Miami, Fla., in 1918.

Major Howard C. Davidson, Post Commander, welcomed the flier on his arrival. Lieut. Daza, who speaks very little English, had some difficulty in explaining what work he wanted done on his plane, until Staff-Sergeant Germaine A. Visbal, of the Photo Section, who was taking pictures of the flier, announced himself as a native Colombian and acted as interpreter.

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LARGE PARACHUTE TESTED AT WRIGHT FIELD

The 84-foot parachute was recently drop-tested at Wright Field, Dayton, O., with a 1600-pound bomb as weight and with a quick-release mechanism to insure the weight against being dragged by the chute upon landing. The parachute opening was smooth and almost instantaneous. The quick-release mechanism, which in an airplane drop would be operated by the pilot an instant prior to coming to the ground, was pulled after the bomb had landed and, relieved of the weight of the bomb, the great parasol, which had more the appearance of the side of a circus tent, deflated. The release mechanism operated perfectly. A Brinnel dynamometer was attached for this drop to measure the force applied to the parachute with bomb weight at the moment of opening. Calibration showed this to be 4800 pounds as against 2000 pounds for the man-carrying parachute with man-weight.

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AIR CORPS WINS INTERNATIONAL BALLOON RACE

The team of Captain Wm. E. Kepner, pilot, and Lieut. Wm. O. Eareckson, aide, representing the Army Air Corps, won the International Balloon Race, which started from Detroit, Mich., on June 30th. This makes the third consecutive time an American free balloon team won this annual international event, and the United States, therefore, retains permanent possession of the Trophy. The Army team covered 460.9 miles.

What Slacks Feel Like at INSPECTION.

The team of Hugo Kaulen, pilot, and Hugo Kaulen, Jr., aide, representing Germany, won second place, having traversed a distance of 459.4 miles. Charles Dollfus, pilot, and Georges Carmier, aide, representing France, won third place by covering 447.9 miles. It will thus be noted that the race this year was exceedingly close.

Unless a new trophy is put up with the purpose in view of perpetuating the annual free balloon race, it means the end of this international lighter-than-air sporting classic. It is not likely that lovers of free ballooning will permit the untimely demise of an event which has attained such wide world popularity.

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DETAIL OF WEST POINT GRADUATES TO AIR CORPS

Nearly a third of the class which graduated from the United States Military Academy, West Point, N.Y., last month, were detailed to the Air Corps and directed to take flying training at Brooks Field, Texas. Since 1922, a total of 294 West Point graduates were detailed to the Air Corps. The number detailed each year is shown below, as follows:

Year	Number of Graduates	Detailed to Air Corps	Percentage
1922	132	16	12.1%
1923	261	51	19.5%
1924	406	61	15.0%
1925	245	42	17.1%
1926	306	18	5.8%
1927	203	30	14.7%
1928	261	76	29.1%

NOTES FROM AIR CORPS FIELDS
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San Antonio Air Depot, Duncan Field, Texas, June 16.

First Lieut. Merrick G. Estabrook, Jr.,A.C., of the Middletown Air Depot, was on temporary duty at this Depot from June 3d to June 6th, in connection with a study of shop practices and methods used in reconditioning aeronautical supplies and equipment.

On June 2d Warrant Officer Albert Bloom was retired from active service at this Depot, after more than thirty years' service. He was assigned to duty at this Depot in March, 1921, on transfer from the former Aviation Repair Depot at Dallas, Texas, upon its consolidation with this Depot, and since then served continuously at this Depot. Warrant Officer Bloom is accompanied by the best wishes of this command upon the termination of his long and honorable period of active service.

Lieut. Frederic B. Wieners returned to duty at this Depot on June 7th from a thirty days' leave of absence.

Major Frank D. Lackland, Commanding Officer of the Third Attack Group, Fort Crockett, and formerly Commanding Officer of this Depot, paid us a visit on June 15th, viewing the activities of the Depot and getting in touch with his many old friends here.

Major Douglas B. Netherwood, of the Office of the Chief of the Air Corps, afforded this Depot the pleasure of a visit on June 15th.

During the month of May the Engineering Department of the San Antonio Air Depot overhauled and repaired the following airplanes and engines:- Airplanes: 7 PT-1, 2 NBS-1, 1 AT-4, 4 DH-4M-1, 2 DH-4M-1T, 1 DH-4M-2T, 1 O2-A, 1 O2-D, 1 AT-5, Total, 20 airplanes: Engines:- 15 Liberty, 23 Wright E, 3 Curtiss D-12, Total, 41 engines.

Kelly Field, San Antonio, Texas, June 20.

In spite of the fact that most of them are "school teachers", the Kelly Field delegation at the Annual Machine Gun and Bombing Matches at Langley Field won several of the "choicest" places in the meet just passed.

Lieutenants Whiteley and Lanagan, came away with the high score, which rumor places as the highest score ever to be recorded at a competition match. Lieut. Partridge won the first place in the Observation machine gun matches, and he and Lieut. Andrew won the match for their team for fixed and flexible guns. Every member of the delegation from Kelly Field did good work. One field cannot be expected to win everything.

43d Squadron: Tech. Sgt. McKibbin, Sgt. Allison and Pvt. Hester were discharged and re-enlisted this month.

Staff Sgts. Wentzell and Collins, Sgt. McFadden, Cpl. Patrick and Pvt. Cabble are slated for discharge later in the month. Sgt. McFadden will be re-enlisted for service in Panama.

Staff Sgt. Jones, Pvts. Edwards, Graham, Harnevious, Jackson, Minnex, and Pippin returned from furlough during the first part of this month.

We will have another member of the organization not on the pay roll since Private Baum attached unto himself a wife. He was married on May 12th.

Pvt. Couch was discharged on the 11th but the following day found him holding up his hand for another hitch. Henry, the Air Corps isn't so bad after all, is it?

Pvts. Losey and Sidell are back from the West Point Prep. School at Ft. Sam Houston. Losey is off for a forty-five day furlough.

Pvt. Beathard is off on a sixty day furlough.

Pvts. Hudson and Gray transferred to the organization from the Infantry. Pvt. Hudson was a sergeant in Company H, 1st Infantry, Ft. D.A. Russel; and Gray was a corporal in Company F, 23d Infantry, Ft. Sam Houston. Evidently the boys are getting tired of walking.

Rockwell Field, Coronado, Cal., June 26.

Maj. S.W. FitzGerald, A.C., former Commanding Officer of Rockwell Air Depot is at present a visitor at this field, having driven overland, by motor, from Brooks Field, Texas. Major FitzGerald will fly as far as El Paso, Texas, with

Lieut. Gothlin, who is to ferry an O2-H plane to Ft. Riley, Kansas.

Maj. H.B. Clagett, Air Officer, Ninth Corps Area, with passenger, was a visitor at Rockwell Field on June 12th, and departed for Yuma, Arizona, the same day.

Lieut. C.E. Grumrine, A.C., arrived from Wright Field June 14th, on inspection tour of proposed plans for permanent construction at Rockwell Field.

Lieut. Virgil Hine, A.C., former popular adjutant of Rockwell Field, was a visitor for the past few weeks. The commissioned and civilian personnel of Rockwell Field are glad to greet Lieut. Hine again.

Lieut. Ray H. Clark, A.C., departed June 21st, via air for Pearson Field, Vancouver Barracks, Wash., to ferry a PT-1 plane to that station. He returned to Rockwell Field, by rail, June 24th.

On June 26th, Capt. C.E. Giffin, 1st Lieuts. E.M. Robbins and Ray H. Clark, departed via air, for Pearson Field, to ferry three PT-1 planes to that station. These officers will return by rail to their proper station.

Capt. Edw. C. Black and 1st Lieut. R. Baez, Jr., who arrived for duty at Rockwell Field were assigned to the 11th Bombardment Squadron.

A total of 92 enlisted men from March Field, Cal., arrived at this station June 25th. They comprise the first increment of the organizations being reconstituted at Rockwell Field, viz:

Hq. 7th Bombardment Group,
95th Pursuit Squadron,
11th Bombardment Squadron.

These men were transported to Rockwell Field by rail, motor and aerial transportation.

Camp was completed to house these troops, consisting of boarded-up tents, kitchens and mess halls, with gas, light and modern plumbing fixtures, also shower baths and toilets.

Lieuts. A.W. Marriner and Wentworth Goss arrived from Crissy Field on June 25th, in Amphibian plane for purpose of cooperative work with the Commandant, 11th Naval District and Commanding General, 6th Brigade Headquarters, Ft. Rosecrans.

Colonel William Elliott, Q.M.C., Corps Area Quartermaster, inspected the Quartermaster activities at Rockwell Field on June 25th.

Lieut. Lee Schoenhair, Air-Res., with Harry Tucker, left Rockwell Field at 1:20 P.M., June 7th, on a non-stop flight to New York City, in Lockheed Plane No. X4769, equipped with Pratt-Whitney motor. However, on account of heavy fog, pilot was forced to land at Columbus, Ohio. This plane, with pilot and passenger, returned to Rockwell Field June 15th, and departed for Los Angeles, June 16th.

Air Depot, Middletown, Pa., July 2.

"Knee deep in June."

Yes, it is rather hard to keep the old eye on the apple these balmy days, with birds singing, flowers flowering and bees beeing. The post looks mighty attractive, what with a new coat of paint on quarters and warehouses, the old family roses climbing up the porch, the ice man singing a round-de-lay as he toils happily from box to box -- So on and on.

Capt. Christine's hard working supplyers here during the month shipped two hangars to Langley Field by hand. Don't misunderstand me! Both Depot cranes were condemned by the Government Inspector -- The Hangars were needed at Langley -- Result, 12 men + 10 days = 13 carloads of heavy structural steel.

It was further necessary to inspect 601 Liberty motors in order to get 500 with heavy cases to ship to contractor for overhaul. Say, when are we going to get to the bottom of that pile of Liberties?

A few cross-country trips to break up the monotony:-

Capt. DeFord and Lieut. McGregor drove two puttering PTs to Langley, June 8th, both badly needed by West Point Cadets there.

June 13th Lieut. Harris flits to Bolling, to make recommendations as to disposition of wreckage washed up along the hangar line from their usual week-end storm.

June 14th Capt. DeFord, Lieut. McGregor and Lieut. O'Neal catch the night boat for Langley and then bring three supercharged DHs back for overhaul. Boy, ain't them clams delicious?

June 16th Capt. DeFord and Lieut. McGregor repeat with palpitating PTs to Langley.

June 25th Capt. DeFord, Lieut. Harris and Lieut. O'Neal steam to Hampton and fetch back worn O2s to be rejunevated in the shops.

On the 14th inst. Lieut. Estabrook upt anchor and shoved on a month's leave. Our loss is Boston's gain.

Lieut. Harry Mills came back from a short but pleasant vacation spent in Ward #8, at Walter Reed. He reports several successful hours of indoor flying there.

Capt. DeFord journeyed to Carlisle the other evening and, after making a short but snappy speech before the Chamber of Commerce at that place, they voted unanimously to have an airport, selecting a committee to work on same.

Our engineers during June polished off 20 Liberty and 6 Curtiss D-12 engines.

Planes to the number of 14 were overhauled, as follows:

PT-1	3
P-1	2
DH-4M-2K	1
OA-1A	1
O1	2
O-11	1
O-2	4.

Wright Field, Dayton, Ohio, June 26.

Brigadier-General William E. Gillmore lectured on June 29, before a meeting of the American Society of Mechanical Engineers, the subject of his talk being, "The Activities of the Materiel Division". The meeting was held in Detroit, Mich. Lieut. Carl F. Greene spoke at the morning session on "An Introduction to the Problem of Wing Flutter".

Maj. J.E. Fickel, Capt. Reinartz, Lieuts. A.F. Hegenberger, A.J. Lyon and several other officers, flew to Rochester, Minn. to assist in the dedication and formal opening of the new airdrome.

Capt. O.P. Echols departed for Buffalo, N.Y., to ferry a Consolidated O-17 airplane to National Guard Headquarters at Spokane, Wash.

Lieut. R.C. Zettel, Lawrence J. Eyler and Clem C. Trimback attended the Gunnery Maneuvers held at Langley Field from June 1 - 10. While there, they studied the problems arising in connection with the service and use of armament equipment and demonstrated recently developed flexible gun equipment for airplanes.

Capt. A.W. Stevens left for Washington, Philadelphia and New York City for conferences and inspection duty concerning aerial cameras and chemicals for quick-work photography.

Capt. Theos Tillinghast was married on June 23d to Miss Margaret Dodds, of Cincinnati, Ohio. The wedding ceremony was performed at the Holy Trinity Episcopal Church of Cincinnati.

Boston Airport, East Boston, Mass.

The past month was a tough period for flying at Boston, as six different ships had forced landings on or near the Airport. The first one to get into trouble was a Travel-Air, piloted by a civilian, "Red Chandler". The ship went into a spin at 500 feet and crashed across the Narrow Gauge Railroad 200 yards from the Airport. The passenger, a civilian mechanic, was killed, and pilot badly injured.

The next accident was another civilian ship, carrying two girls as passengers. Ship was forced down on account of motor trouble. Neither pilot nor passengers were hurt, and very little damage to ship.

Lieut. Dexter, from Bolling Field, flying a PW-9, was next to encounter trouble. He was spending the week-end of May 26th and 27th at Boston. On the 28th when taking off, and immediately after leaving the ground, the motor apparently cut out. He tried to turn back to the field, just making the outer edge of the runway. The ship crashed, turned over on its back, pinning the pilot under it in the seat. Mechanics who rushed to his assistance had to lift the plane in order to get the Lieutenant out from under the wrech. He was not seriously injured, but suffered a few cuts and bruises. Major Cummings, the Flight

Surgeon, administered first aid and sent him to the hospital at Fort Banks, where he remained for a few days. The ship was badly damaged and was shipped to Middletown to see what can be done to it. It is believed, however, that the ship is beyond repair.

This crash is really the most fortunate accident your correspondent has ever witnessed (if crashes should be themed fortunate.). In the first place, the pilot either did not have time or failed to cut his switches. The gas tanks burst, saturating the pilot and the wrech with gasoline. What is meant by the fortunate part of accidents is that the ship did not catch fire, in which case the pilot would have burned up with the ship before anyone could help him. We are all thankful that it happened as it did, and, as Lieut. Duke says: "The open exhaust stack saved Dexter".

On June 1st, one of our PT-1 planes, piloted by 2nd Lieut. Horace White, A.C. Res., landed just off the runway at the edge of the water. Lt. White claims that motor quit, but some claim that he forgot to turn his gas on his second tank. At any rate, neither pilot nor ship was hurt, so we will let it go at that. But the following day a PT-1, flown by Lt. George Lusk, A.C.-Res., had motor trouble and disaster followed. In trying to make the field the pilot fell short about 100 feet and landed in the mud flats. The plane turned over and was damaged to such an extent that it was also sent to the Middletown Air Depot. Lieut. Lusk and Sergeant Rutledge, Enlisted Reserve, who was riding as passenger, sustained a few scratches, but nothing serious.

Last Sunday morning a brand new Travel-Air went in the bay 300 yards off shore, where it remained for two days before getting it out. That, of course, is ruined from the salt water.

What we need here is a boat to get to ships forced to land in waters surrounding the field. Personnel in such ships would drown before help could reach them without a boat should the ship turn over and pin them underneath.

On May 27th General Preston Brown, Commanding 1st Corps Area, with Lieut. Duke, A.C., pilot, in the A-3 assigned to General Brown, left Boston for St. Louis, Mo., where the General attended a re-union of his old division, of which he was Chief of Staff during the war. During the trip they stopped in Buffalo, Dayton, Lexington, Louisville and Leavenworth, Kans. On their way back east they made one hop from St. Louis to Washington, which is the longest single flight the General has made since he started flying, and of which he is very proud. Both General Brown and Lieut. Duke were much pleased with the trip, being enthusiastically received everywhere,. Good weather prevailed throughout the trip.

We are now equipped for night flying, having installed a B.B.T. Flood Light, donated by Mr. Chandler Hovey of Boston, who also paid for the installation. Too much praise cannot be given Mr. Hovey for the financial help and moral assistance he has rendered for the improvement of the Airport, only I do say that there are too few of his type. Speaking of lighting facilities for night flying, the light was tested recently. Lieuts. Duke and Cobb flew for thirty minutes, making several landings, and found the light just what we needed; so anyone flying to Boston need not worry about getting here after dark. All we need now is a light for the wind cone.

During the first part of June, four PT-1s and the Vought flew to Barnes Airport at Westfield, Mass. to participate in the dedication of that field. During the three days we were there it rained every day; consequently, the meet did not prove very successful. An Airport was also opened at Lowell, Mass., and the dedication no doubt a huge success according to the number of planes which passed through here for Lowell, including Army, Navy and Civilian Aircrafts. The Boston Airport had an exhibition of Motors, Parachutes, Maps, etc., while Lieut. Gale from Mitchel Field was there with a photographic exhibit. The weather was good, and the field they dedicated is O.K., though not the best in New England, as they advertised it. Of course, all of our planes participated and four mechanics were on duty there during the three-day period. Next week, June 28, 29 and 30th an Airport is being opened at Lucerne, Maine, and we are helping to get them started on those dates.

Capt. Ford arrived from Middletown today in a PT-1 which is assigned here. This ship will give us four planes of that type. Air Corps Reserve Officers of this Corps Area are being assigned to active duty at the Airport for 14 day periods, two being assigned during each period.

Major Kennedy from the Chiefs' Office was here for a few days looking over

the situation of either improving this Airport, or taking over part of the Squantum Naval Flying Field for the Army. That will involve the transfer of land from the Navy to the Army and, of course, expenditure of much money to fit a field for flying, and building of hangars and quarters. However, the propaganda the news papers and people of Boston carried on during the past few months seems to be doing some good, as the city is taking this field over and will start improvements within the next two months. First, the hangars will be moved from the center of field to one side, the Army to be located at the southeast corner and Commercial activities at the southwest corner. After buildings are moved, grading and filling will start, so within another year there should be great improvements, and, as often stated, the Boston Airport will be second to none.

The Corps Area Inspector paid us a visit last week, inspected records, equipment and personnel. He found everything in good order; at least, we haven't heard otherwise.

Sergeant Viscik reported for duty today from 1st Obs. Sq. to replace Sgt. Keogh, who could not get acclimated to Boston, nor become reconciled to conditions here, and John is going back to his old love, Mitchel Field. Two privates were recently assigned, one to replace Pvt. Zucchero, discharged, and the second as an additional man. The enlisted personnel now consists of 3 non-commissioned officers, 3 privates, 1st Class, and 8 privates, one of whom is on duty at the Air Office, leaving 13 enlisted men on duty at the Airport.

Corporal Halstead made a trip to St. Johns, N.B. by automobile, taking a three day pass and, with a Sunday added, he made the trip without hurry. Our 1st Sgt. Anderson will be putting in for his retirement in a month or so. We are wondering what Andy will do after he gets out. He will be like a fish out of water and no doubt miss the Army after being in it for 27 years.

Serial No. 270 LIST OF NEW MATERIAL ADDED TO INFORMATION DIVISION FILES

June 18th, 1928 to July 1st, 1928.

Available for loan to Air Corps organizations only upon request to the Air Corps Library, Munitions Bldg., Washington, D. C.

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